Justification for Project Closeout (CD-4)
for the
Electrical System Modifications – Phase II at BNL

Laboratory Infrastructure Division
Office of Laboratory Operations and ES&H
Office of Science

A. Project Scope

An extensive refurbishment of the BNL electrical infrastructure was achieved with this project. Two 2.4 kV switchgears were replaced, new 13.8 kV and 2.4 kV ductbanks and feeders were installed, and 13.8 kV and 480 V breakers were reconditioned. Installation of the new sectionalizing switches reconfigured and improved the electrical distribution system as well. During construction many underground oil filled switches and link boxes were removed, eliminating a possible environmental hazard. In addition to the initial scope (Items 1–5), additional work was performed (Items 6 and7) under a Baseline Change Proposal with no increase in the project TEC:

1) Replaced existing 2.4 kV switchgear at Substations 616 and 617.
2) Installed 23,000 feet of new 13.8 kV cable to serve Building 901 and created a loop feed by extending Brookhaven Avenue ductbank "E".
3) Replaced 13,500 feet of deteriorating 2.4 kV underground feeder along Upton Road with a new, larger feeder and installed six aboveground padmount switches.
4) Installed 14,000 feet of cable to create an alternate feeder to AGS Main Magnet Power Supply (MMPS) Substation 928, the Radio Frequency Power Supply (RF) Substation 929, and extended the "F" ductbank along Thomson Road, south to Rutherford Drive.
5) Reconditioned ten 13.8 kV and fifty 480 V circuit breakers.
6) Installed four 5 kV sectionalizing switches eliminating 11 link boxes and oil switches.
7) Replaced 5,300 feet of damaged 5 kV cable and refurbished the Building 51 substation (CP-2).

B. Project Cost

Baseline Total Estimated Cost (TEC):	$6,770K
Actual Project Cost:	$6,734K

C. Project Schedule

Baseline Construction Complete:	4th Quarter FY03
Actual Construction Complete:	4th Quarter FY03

D. Project Closeout

Project Closeout Documentation attached:

- Completed Occupational Readiness Evaluation
- Memo to Plant Engineering Transmitting O&M Procedures
- Memo from Plant Engineering O&M

Submitted by:

Nand Narain Date
DOE Project Director
Brookhaven Area Office

Approval:

This project was completed on schedule and within the TEC. Completion of work has been verified by the DOE site representatives. Upon the foregoing information, I authorize the start of operations and the closeout of this project.

Michael Holland Date
Manager
Brookhaven Area Office